Alexandria/Arlington
Resource Recovery Facility




Third Quarter 2013
Summary Operating Report

Prepared by:

HDR Engineering, Inc.
5426 Bay Center Drive, Suite 400
Tampa, Florida 33609

Table of Contents

List of Tables

Table No. **Page No.**

List of Charts

Chart No. **Page No.**

List of Figures

Figure No. **Page No.**

Definition of Abbreviations & Acronyms

Abbreviation/Acronym	Definition
APC	Air Pollution Control
Apr	April
Aug	August
Avg	Average
Btu	British thermal unit
CAAI	Covanta Alexandria Arlington, Inc.
CEMS	Continuous Emissions Monitoring System
CO	Carbon Monoxide
Dec	December
Feb	February
FMG	Facility Monitoring Group
FY	Fiscal Year
gal	Gallon
GAT	Guaranteed Annual Tonnage
HCl	Hydrochloric (Hydrogen Chlorides)
HDR	HDR Engineering Inc
ID	Induced Draft
Jan	January
Jul	July
Jun	June
klbs	Kilo-pounds (1,000 lbs)
kWhr	Kilowatt hours (1,000 watt-hours)
lbs	Pounds
LOA	Letter of Agreement
Mar	March
Max	Maximum
May	May
Min	Minimum
MSW	Municipal Solid Waste
MWhr	Megawatt hours
No	Number
NOV	Notice of Violation
Nov	November
NO_x	Nitrogen Oxide
Oct	October
OSHA	Occupational Safety and Health Administration
PDS	Potomac Disposal Services
ppm	Parts per million
ppmdv	Parts per million dry volume
PSD	Prevention of Significant Deterioration
Q1	First Quarter
Q2	Second Quarter
Q3	Third Quarter
Q4	Fourth Quarter
RE	Reportable Exempt
RNE	Reportable Non-Exempt
SDA	Spray Dryer Absorber
Sep	September
SO_2	Sulfur Dioxide
TCLP	Toxicity Characteristic Leaching Procedure
VADEQ	Virginia Department of Environmental Quality
WL	Warning Letter
yr	Year
YTD	Year to date

Alexandria/Arlington Waste-to-Energy Facility
Third Quarter 2013 Summary Operating Report

1.0 Purpose of Report

HDR Engineering, Inc. (HDR) was given authorization by the Facility Monitoring Group (FMG) to conduct quarterly inspections and provide quarterly monitoring reports regarding the operation and maintenance of the Alexandria/Arlington Waste-to-Energy Facility (Facility) for the first half of the 2012 calendar year. This report is prepared for the third quarter of the 2013 fiscal year and summarizes Facility operations between January 1, 2013 and March 31, 2013. This report identifies the fiscal year beginning on July 1, 2012, as FY13, and the quarter beginning on January 1, 2013 as Q3FY13. This report is the first deliverable under the temporary agreement between the FMG and HDR Engineering, Inc.

This report is based upon the experience HDR has in the waste-to-energy industry, upon site observation visits and previous reports provided by HDR, and upon data provided by Covanta Alexandria / Arlington, Inc. (CAAI), the Facility operator.

2.0 Executive Summary

CAAI operated the Facility in an acceptable manner and in accordance with established waste-to-energy industry practices during Q3FY13. The operation of the Facility, maintenance, safety, and overall cleanliness continue to be above average. Environmental performance was good with one (1) reportable environmental excursion throughout the quarter. An explanation of this event is contained in Section 6.0 of this report.

During Q3FY13, the Facility experienced two (2) instances of unscheduled downtime for the boilers totaling 28.1 hours, and one (1) instance of unscheduled downtime for the turbine generators totaling 8.0 hours. All three (3) boilers experienced periods of downtime for scheduled maintenance totaling 448.9 hours combined. No scheduled downtime was experienced by the turbine generators during the quarter. The boilers experienced one (1) instance of standby time totaling 46.2 hours, and the turbine

generators experienced one (1) instance of standby time totaling 193.8 hours during the quarter. A detailed listing of unit downtime is provided in Section 5.1 of this report.

Average waste processed during the quarter was 907 tons per day, or 93.0% of nominal facility capacity. Waste deliveries averaged 916 tons per day, which is 0.1% higher than the burn rate. The capacity utilization of 93.0% compares favorably to industry averages, which are generally in the 88% to 92% range.

Performance trends for various measurements are presented in Section 4. In general, the Facility continues to demonstrate reasonable consistency in month to month performance throughout the most recent three year period tracked for detailed comparisons.

During the quarter, MSW processed increased 3.7% from the corresponding quarter in FY12; steam production increased 5.5%, and electricity generated (gross) increased 6.4% from the corresponding quarter in FY12. Note that all three (3) parameters increased in Q3FY13 as compared to Q3FY12, which had an extra day of operations in February 2012 due to leap year. The increase in processed waste and steam generation in Q3FY13 as compared to Q3FY12 occurred despite 67.3 hours more downtime (unscheduled, scheduled, and standby time). The increase in electrical generation in FY13 as compared to FY12 occurred despite 187.8 hours more downtime (unscheduled, scheduled, and standby time).

3.0 Facility Inspection and Records Review

In January and March 2013, HDR met with the Facility management and other plant personnel to discuss Facility operations and maintenance, acquire Facility data and reports, perform an independent visual inspection of the operating Facility, photograph areas of interest, and perform a review of recent Facility activity. These visits were coordinated with the scheduled FMG Meetings. At the time of the visits, HDR reviewed CAAI records, discussed performance issues with CAAI staff, and provided a monthly report. HDR maintains a running tabulation of the status of corrective actions and plant performance trends. CAAI provides the following documents for each month:

- Facility Monthly Operating Reports
- Monthly Continuous Emissions Monitoring System (CEMS) Reports

Table 1 summarizes maintenance, repair, and plant condition issues reported during this and prior audit reporting periods. An "A" indicates an issue of the highest priority and worthy of immediate attention. Such items are usually safety or operability issues. A "B" indicates that the issue needs to be dealt with as quickly as possible, but is not urgent. These items will usually result in a process improvement or will help avoid future "urgent" issues. A "C" indicates that the issue should be dealt with at the earliest convenience, but is not a priority issue. This category might include issues related to aesthetics, non-urgent maintenance, or housekeeping improvements which are not safety related.

Table 1: Summary of Audit Report Deficiencies

*A is highest priority & demands immediate attention: B needs attention, but is not urgent; C can be addressed at earliest opportunity & is not urgent.

Item No.	Audit Report Deficiencies	Issue Reported	Priority *	Resolution/Status	Date Resolved	Open / Closed
1	Spider cracking at scale entry area	July 2010	C	Repair		Open
2	Spalling concrete at municipal scale platform. Note further deterioration observed during the June 2011 inspection.	July 2010	C	Repair		Open
3	Tipping Floor siding damaged	July 2012	C	Repair siding		Open
4	Pothole at truck entry roadway	May 2012	C	Repair		Open

4.0 Facility Operations

Monthly operating data provided by CAAI indicates that 81,592 tons of MSW were processed during Q3FY13, and a total 82,448 tons of MSW including 804 tons of Special Handling Waste were received. Total ash production during the quarter was 17,259 tons, which represents 21.2% of the waste processed. The average uncorrected steam production rate for Q3FY13 was 3.2 $tons_{steam}/ton_{waste}$; 1.8% more than the corresponding quarter in FY12.

Chart 1: Tons of Waste Processed

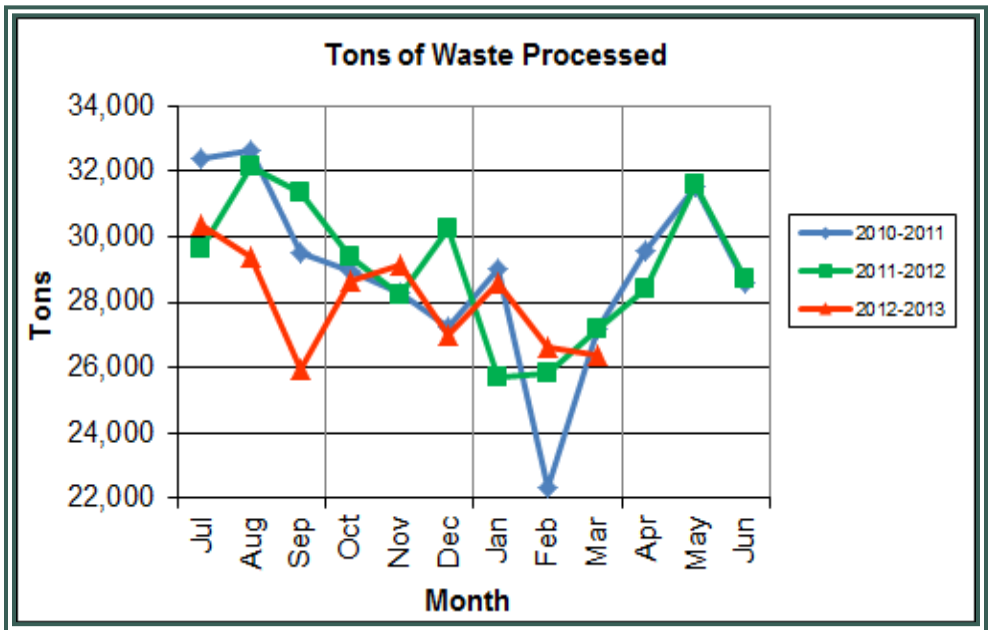


Chart 1 illustrates that Q3FY13 waste processed was higher (3.7%) than the corresponding quarter Q3FY12. CAAI reported that 524 tipping floor/MSW inspections were conducted during the quarter and five (5) notices of violation (NOV) were issued for the following:

- January – One (1) NOV was issued for excessive metal in the load
- February – Three (3) NOV were issued for unacceptable waste
- March – One (1) NOV was issued for excessive metal in the load

Chart 2: Tons of Ash Produced per Ton of Waste Processed

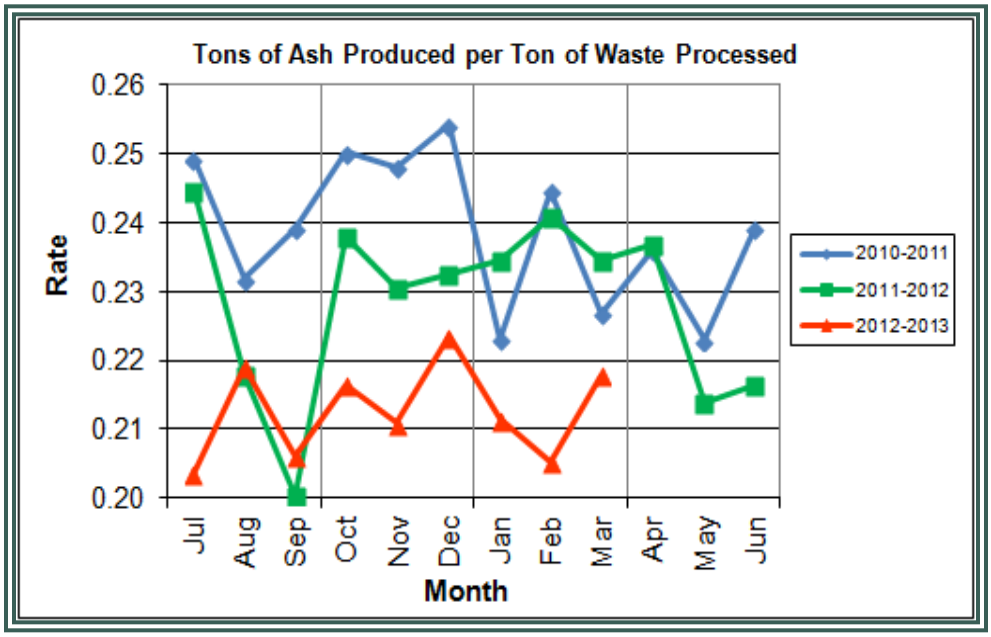


Chart 2 illustrates that ash production rates in Q3FY13 are lower (10.6%) at 21.2% of processed waste, compared to the corresponding quarter in FY12 when the ash production rate was 23.7% of processed waste. The significant decrease in ash production, which began in May, 2012 is attributed to the installation of the "semi-dry" ash discharger spray system, and represents less moisture in the ash residue shipped to disposal.

Chart 3: Ferrous Recovery Rate

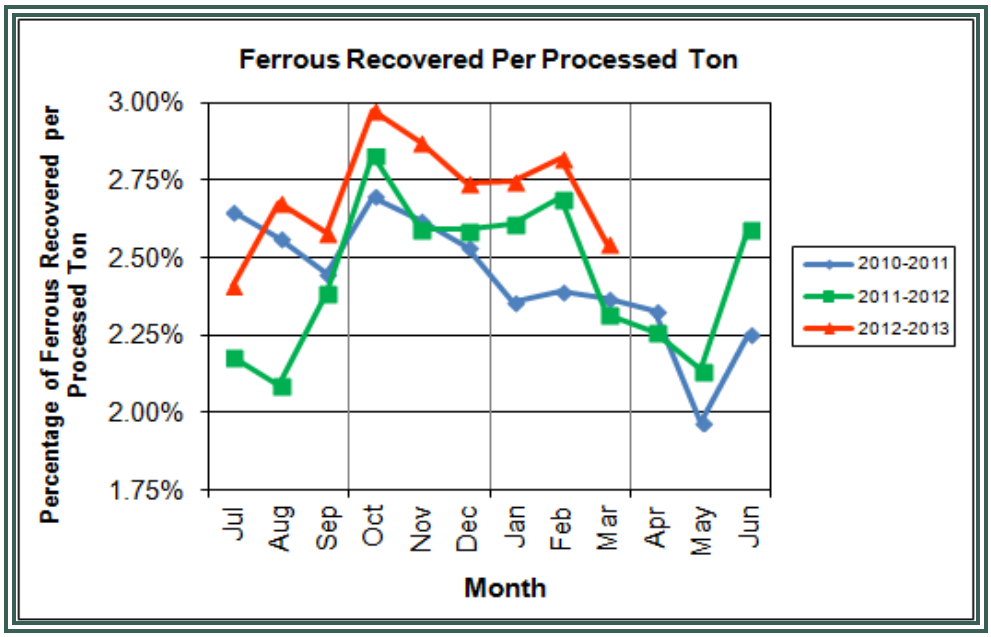
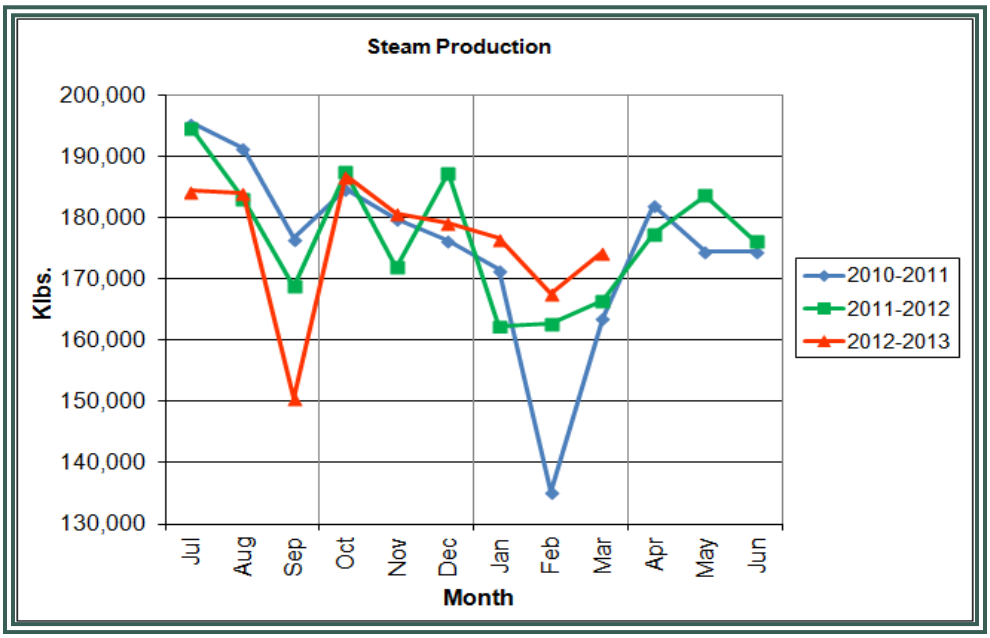


Chart 3 depicts the monthly ferrous metal recovery rate as a percentage of processed MSW tonnage. It should be noted that the metal recovery rate percentage increase correlates to the aforementioned ash generation rate decrease. In Q3FY13, 2,209 tons of ferrous metals were recovered, which is 10.7% higher than the corresponding quarter in FY12 and equivalent to 2.7% of processed waste. Ferrous metal recovered since the system was added in May 2007, totals 46,877 tons.

Chart 4: Steam Production



In Chart 4, the total steam production for Q3FY13 was 518,448 klbs., or 5.5% higher than the corresponding quarter in FY12. The increase in steam production is attributable to higher (3.7%) waste processed, as well as an increase (0.6%) in waste heating value.

Chart 5: 12-Month Rolling Steam Production

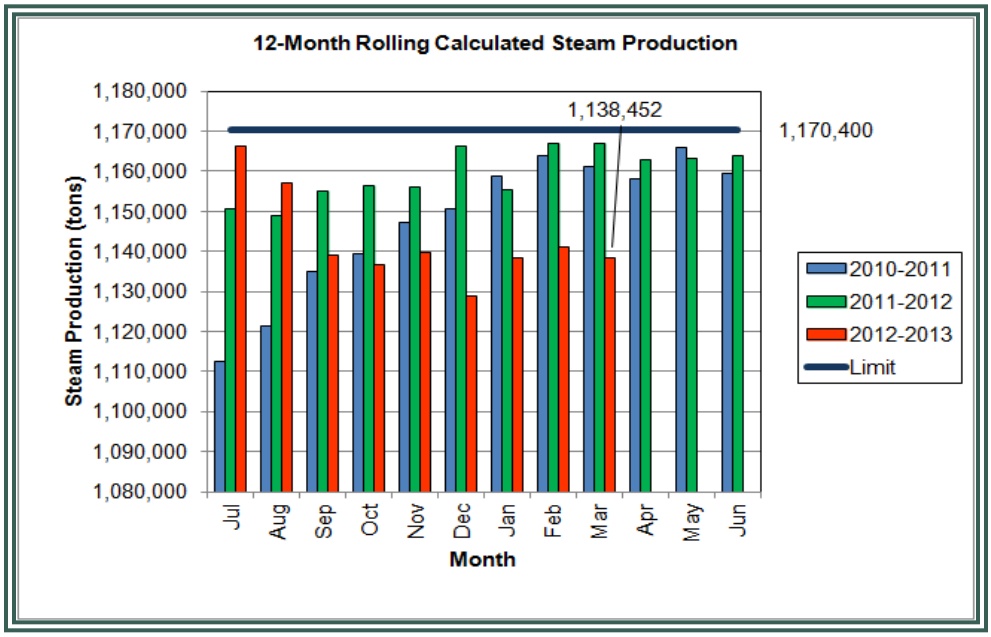
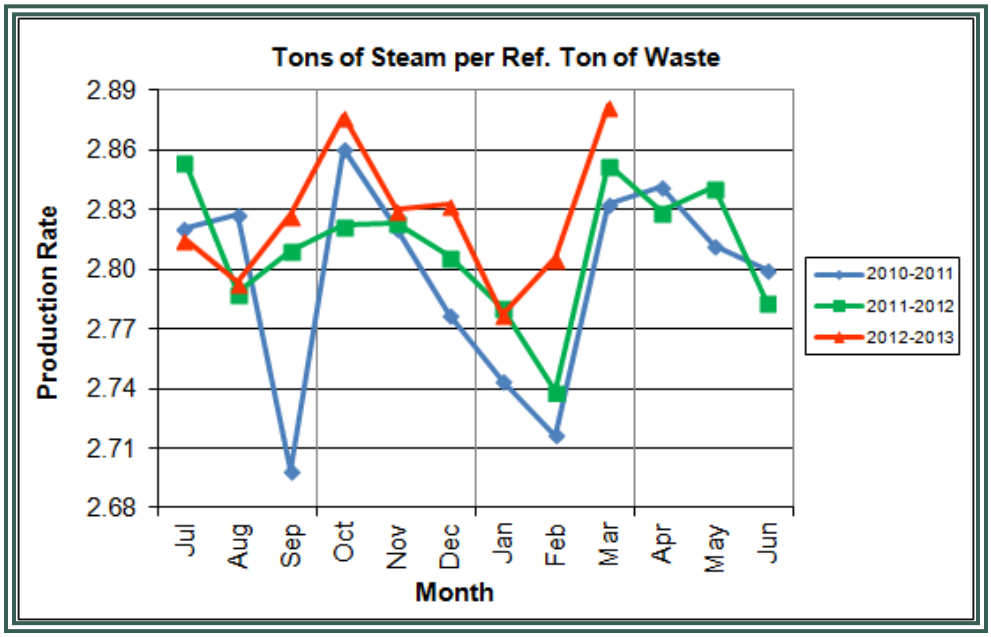


Chart 5 depicts the 12-month rolling steam production total for the period ending in September 2012. According to the Title V permit, the annual steam production for the Facility shall not exceed 1,170,400 tons on the basis of an average value of 3.34 lbs of steam per lb of MSW processed, calculated monthly as the sum of each consecutive 12 month period. The Facility was in compliance with the 12-month rolling steam production total every month in the quarter. The 12-month rolling total for steam production ending in March 2013 was 1,138,452 tons which is 97.3% of the limit.

Chart 6: Steam Production Rate



In Chart 6, the conversion of raw waste tonnages into "reference tons" is another way of looking at the issue of steam production, and helps to determine whether changes are related to boiler performance or to fuel issues. "Reference tons" are adjusted to account for the calculated average fuel heating value, so that lower Btu fuel raw tonnages are adjusted upwards and vice versa. In this case, Q3FY13 tracked higher (1.1%), at 2.82 $tons_{steam}/ton_{ref}$, than the corresponding quarter in FY12.

Chart 7: Calculated Waste Heating Value

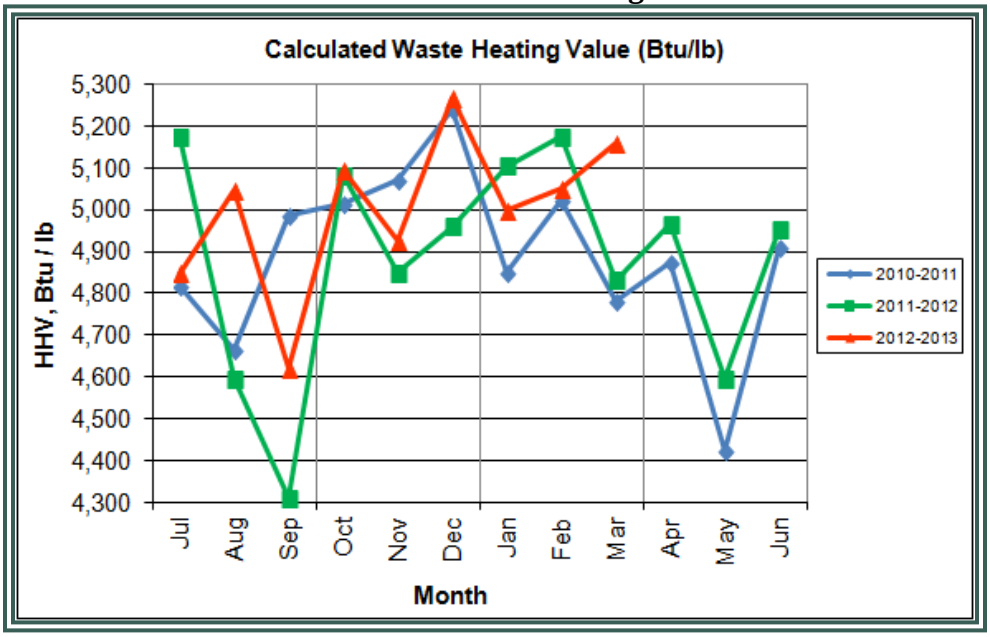


Chart 7 illustrates that Q3FY13 average waste heating value was higher (0.6%) at 5,070 Btu/lb than the corresponding quarter Q3FY12, which averaged 5,037/lb.

Table 2: Quarterly Performance Summaries

Month		Waste Processed (tons)	Waste Diverted (tons)	Ash Shipped (tons)	Special Handling (Supplemental) (tons)	Ferrous Recovered (tons)	Steam Produced (klbs)	Net Electrical Generation (kWhr)
Q3FY11	**Quarterly Totals**	**78,460**	**0**	**18,089**	**73**	**1,859**	**470,304**	**32,972**
	January-11	28,988	0	6,468	14	683	171,508	12,309
	February-11	22,294	0	5,456	34	533	135,199	9,371
	March-11	27,178	0	6,165	25	643	163,597	11,292
Q3FY12	**Quarterly Totals**	**78,699**	**0**	**18,623**	**49**	**1,996**	**491,296**	**34,237**
	January-12	25,711	0	6,030	12	671	162,221	11,174
	February-12	25,813	0	6,220	22	695	162,605	11,766
	March-12	27,175	0	6,373	15	630	166,470	11,297
Q3FY13	**Quarterly Totals**	**81,592**	**0**	**17,259**	**804**	**2,209**	**518,448**	**36,791**
	January-13	28,610	0	6,050	363	786	176,575	12,943
	February-11	26,598	0	5,458	365	751	167,519	11,980
	March-11	26,384	0	5,751	76	672	174,354	11,868
FY13 YTD Totals		**252,110**	**0**	**53,620**	**1,710**	**6,825**	**1,583,989**	**106,975**
FY12 Totals		**348,455**	**0**	**79,424**	**336**	**8,474**	**2,121,209**	**149,919**
FY11 Totals		**347,193**	**0**	**82,851**	**203**	**8,444**	**2,105,620**	**149,143**

Table 2 presents the production data provided to HDR by CAAI for Q3FY13 on both a monthly and quarterly basis. For purposes of comparison, data for Q3FY11 and Q3FY12 are also shown, as well as FY11, FY12 and FY13 year to date (YTD) totals.

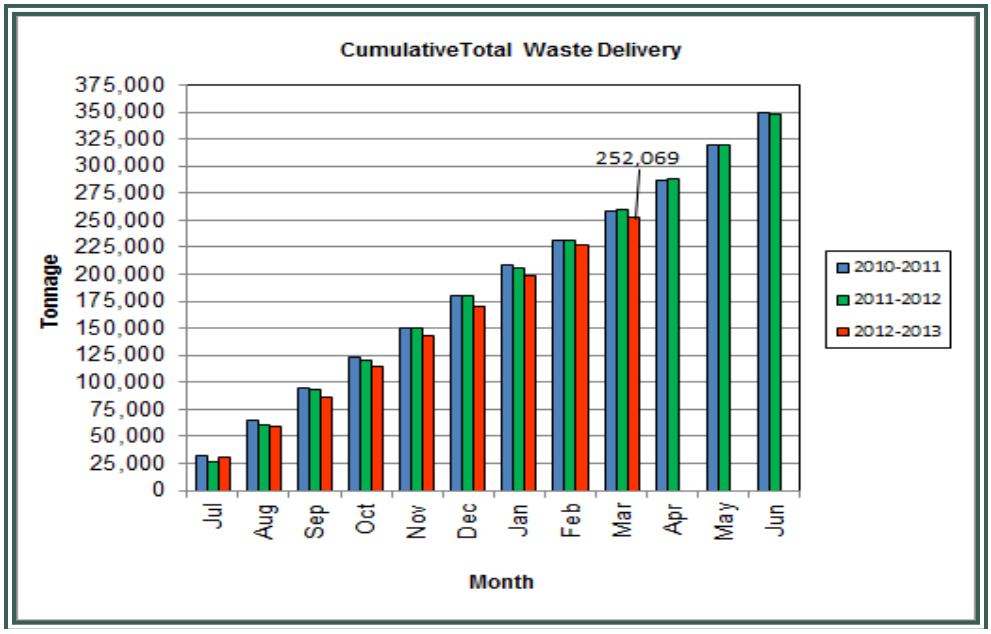
On an overall basis, the data shows that more waste was processed, more electricity was generated, and more steam was produced in Q3FY13 as compared to Q3FY12. Please note the total steam generation figures presented in Table 2 do not correlate with the annual steam production limit from the Facility Permit; such limits apply on a 12-month rolling average monthly basis, and not a fiscal year basis. It is also worth noting that the quantity of supplemental waste, while still a small percentage of overall waste, has significantly increased (700+ tons) in Q3FY13 compared to the same periods in the prior two (2) fiscal years.

Table 3: Jurisdictional vs. Non-Jurisdictional Waste Delivery

		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Totals
FY09	**Jurisdiction waste toward GAT**	21,811	20,088	20,960	20,628	19,675	20,519	18,637	16,317	18,216	19,630	20,225	20,781	237,486
	Spot Waste tons	9,964	8,814	8,572	8,280	5,124	12,303	8,829	8,619	11,290	9,205	9,363	10,048	110,411
	Supplemental Waste	7	40	26	34	24	12	7	7	17	14	3	14	205
	MSW Totals	**31,782**	**28,943**	**29,558**	**28,942**	**24,823**	**32,833**	**27,473**	**24,943**	**29,523**	**28,849**	**29,591**	**30,843**	**348,103**
FY10	**Jurisdiction waste toward GAT**	19,355	18,924	19,036	18,555	18,523	18,388	16,380	14,635	19,308	19,423	18,764	19,796	221,087
	Spot Waste tons	8,261	10,117	6,996	9,817	7,253	8,117	8,677	7,598	9,293	10,568	10,187	10,830	107,713
	Supplemental Waste	10	7	12	6	8	4	9	7	19	8	11	8	109
	MSW Totals	**27,626**	**29,048**	**26,044**	**28,378**	**25,784**	**26,509**	**25,065**	**22,240**	**28,620**	**29,999**	**28,962**	**30,634**	**328,908**
FY11	**Jurisdiction waste toward GAT**	18,201	19,320	18,100	18,244	17,812	17,394	16,316	15,212	18,279	18,596	20,355	19,382	217,213
	Spot Waste tons	13,996	13,917	11,696	9,336	10,177	11,441	12,968	7,016	8,459	10,177	12,947	9,657	131,786
	Supplemental Waste	8	17	12	13	6	13	14	34	25	29	26	6	203
	MSW Totals	**32,205**	**33,254**	**29,808**	**27,593**	**27,995**	**28,848**	**29,298**	**22,262**	**26,763**	**28,803**	**33,328**	**29,044**	**349,202**
FY12	**Jurisdiction waste toward GAT**	18,112	20,021	19,304	17,796	17,523	17,211	16,202	14,952	17,430	18,338	20,138	18,361	215,381
	Spot Waste tons	8,901	13,623	13,303	9,788	11,976	11,900	10,276	10,697	10,283	10,029	11,333	10,177	132,295
	Supplemental Waste	10	10	34	15	15	21	12	22	15	23	68	91	336
	MSW Totals	**27,023**	**33,654**	**32,641**	**27,599**	**29,514**	**29,132**	**26,490**	**25,672**	**27,729**	**28,390**	**31,539**	**28,629**	**348,012**
FY13	**Jurisdiction waste toward GAT**	19,413	18,357	16,632[2]	17,625[3]	18,838[4]	16,195	-	-	-	-	-	-	107,058 [1]
	Spot Waste tons	10,516	11,326	10,610	10,317	9,330	9,558	-	-	-	-	-	-	61,656[1]
	City Waste	-	-	-	-	-	-	1,683[5]	1,287	1,444				4,413[1]
	County Waste	-	-	-	-	-	-	2,442[5]	2,100	2,372				6,914[1]
	Municipal Solid Waste	-	-	-	-	-	-	25,019[5]	23,637	21,661				70,317[1]
	Supplemental Waste	151	11	80	25	234	405	363	365	76				1,710[1]
	MSW Totals	**29,928**	**29,683**	**27,241**	**27,942**	**28,167**	**25,753**	**29,507**	**27,388**	**25,552**				**252,069 [1]**

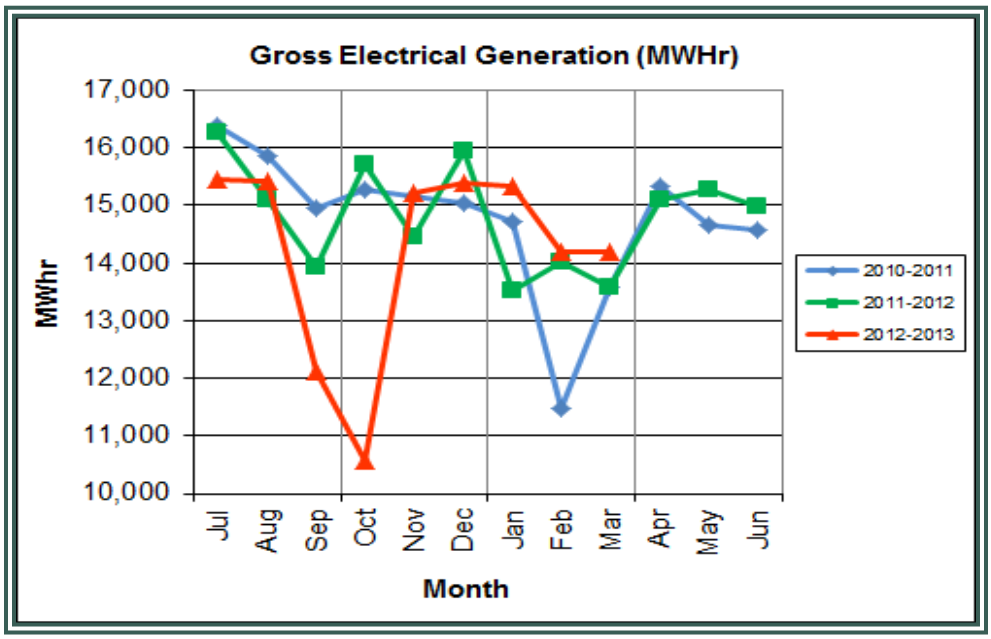
Note (1): Values indicated are year to date (YTD) totals
Note (2): Total includes 505 tons shortfall by PDS
Note (3): Total includes 174 tons shortfall b y PDS
Note (4): Total includes 679 tons credited (subtracted) for the prior 2 months of shortfall tons by PDS
Note (5): Beginning January 2013, waste was classified differently than the prior periods due to change in contractual obligations and plant ownership

Chart 8: Cumulative Total Waste Delivery



Depicted in Chart 8, for the period ending in March 2013; cumulative total waste delivery decreased 2.8%, or 7,386 tons compared to the same period in FY12.

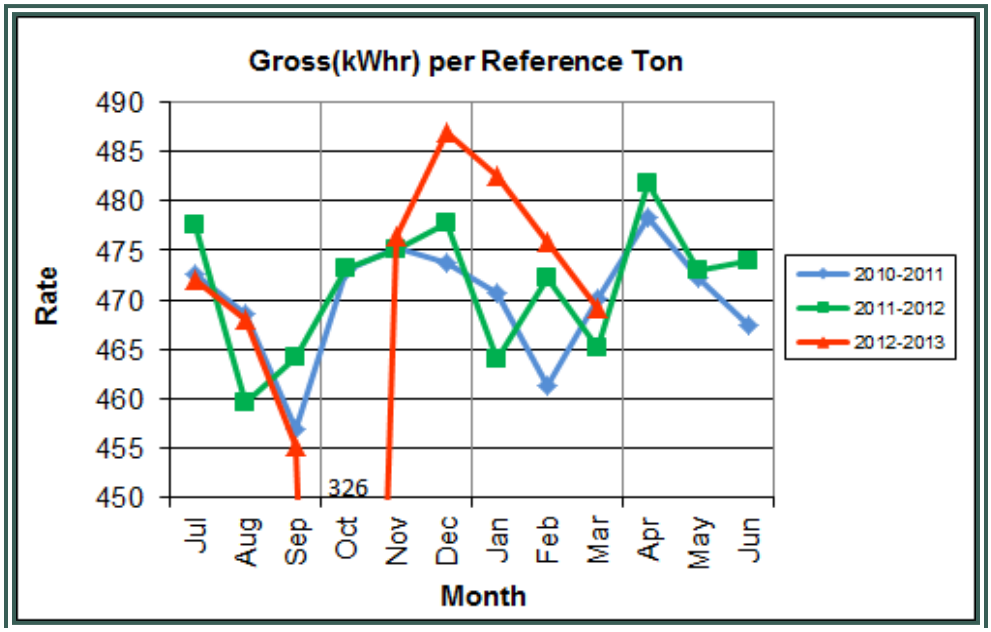
Chart 9: Gross Electrical Generation



During Q3FY13, the Facility generated 43,738 MWhrs (gross) of electricity compared to Q3FY12 generation of 41,126 MWhrs (gross), a 6.4% increase. The increase in gross electrical production is attributable to the increase in processed waste (3.7%), and steam

production (5.5%). Note that the 3-year low of gross electrical production experienced in October was due to Turbine Generator No. 1 experiencing 494.5 hours of downtime for scheduled maintenance. Evidence of the downtime experienced by the Turbine Generators is also presented in Chart Nos. 10 through 14, where sharp spikes are depicted in the trends for the month of October 2012 when the Turbine Generator No. 1 Overhaul was conducted.

Chart 10: Gross Conversion Rate



As shown in Chart 10, the average gross electrical generation per reference ton of refuse processed during Q3FY13 was 476 kWhr, which is higher (1.9%) than the corresponding period in FY12. Since this calculated value uses reference or normalized tonnages of waste, it should cancel the effect of MSW heating value (Btu content) variability.

Chart 11: Net Conversion Rate

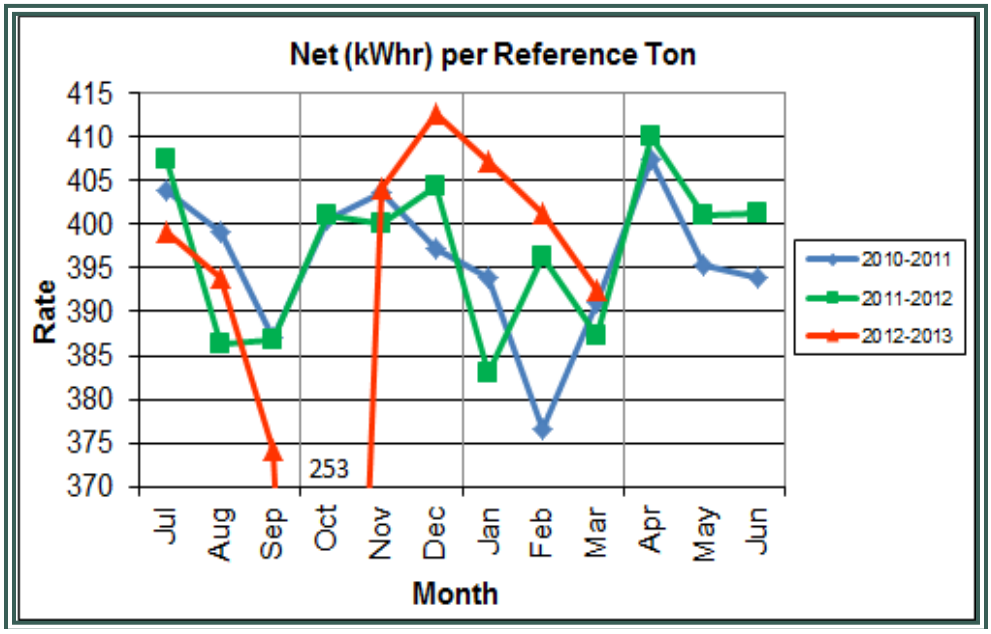


Chart 11 depicts the normalized net power (gross minus in-house usage) generation history. In Q3FY13, the average net electrical generation per reference ton was 400 kWhr, which is 2.9% higher than the corresponding quarter in FY12.

Chart 12: Net Conversion Rate

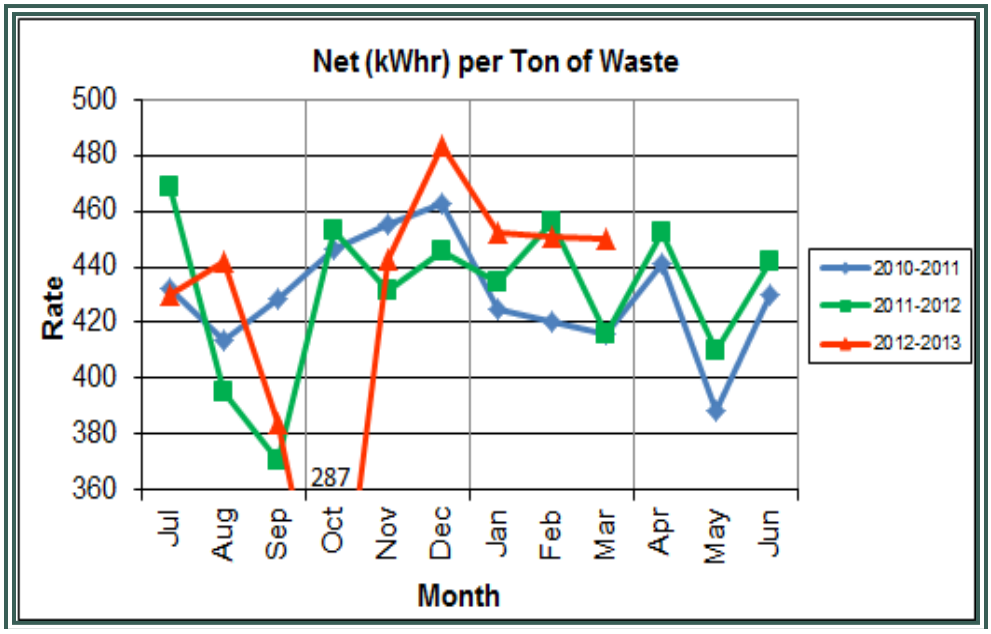
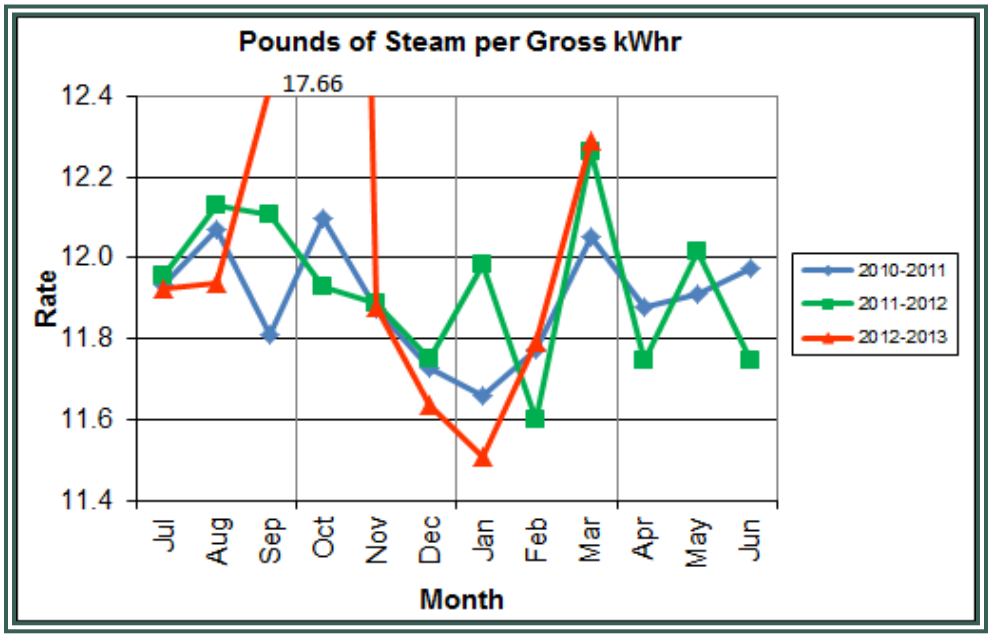


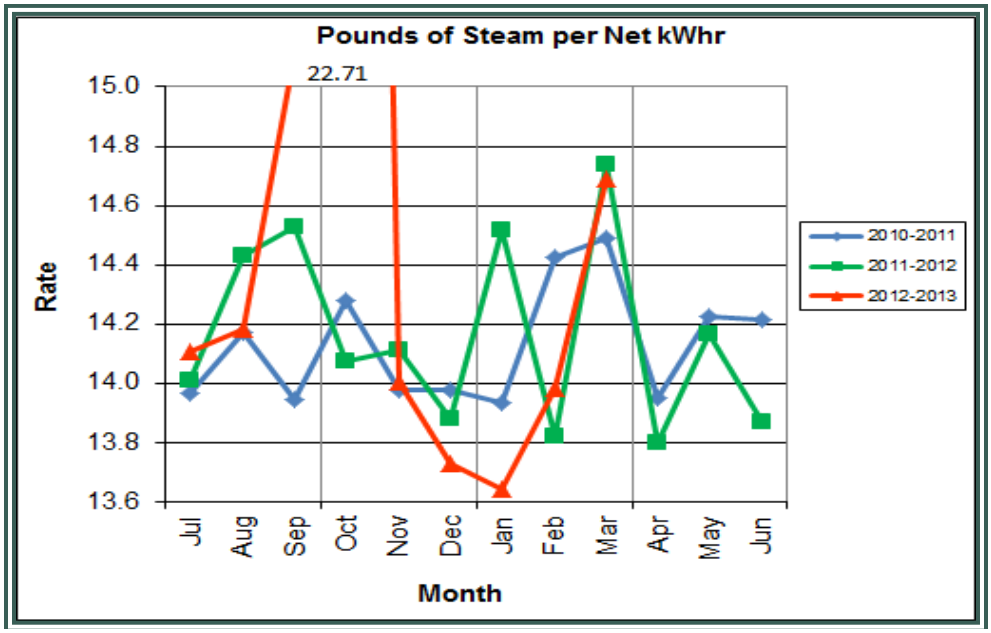
Chart 12 depicts the net power generation per processed ton. The net electrical generation per processed ton in Q3FY13 was 451 kWhr, which is 3.6% higher than the corresponding quarter in FY12.

Chart 13: Gross Turbine Generator Conversion Rate



Charts 13 and 14 illustrate the quantities of steam required to generate one kWhr of electricity, gross and net respectively. This measure is a turbine generator performance indicator, where lower steam rates indicate superior performance. For simplification, this calculated rate is based on the average for the two turbine generators. In Q3FY13 the average lbs of steam consumed per gross kWhr was 11.9, which is slightly lower (0.8%) than the corresponding quarter Q3FY12. The average lbs of steam consumed per net kWhr was 14.1, which is lower (1.8%) than the corresponding quarter in FY12. The average steam temperature during the quarter was 684.0^{o} F, which is higher (1.5%) than the average steam temperature of the corresponding quarter last year, and 16.0^{o} F lower than design temperature of 700^{o} F.

Chart 14: Net Turbine Generator Conversion Rate



5.0 Facility Availability

Facility availabilities for Q3FY13 are shown in Table 4. According to CAAI reports, the average unit availabilities for Boiler Nos. 1, 2, and 3 for Q3FY13 were 92.8%, 93.2%, and 92.4%, respectively. The three-boiler average availability during the quarter was 92.8%, which is good, and comparable to a typical quarter when scheduled maintenance is conducted.

During Q3FY13, the average availability for Turbine Generator Nos. 1 and 2 was 100.0% and 99.6%. The two-turbine generator average availability during the quarter was 99.8%, which is excellent.

Table 4: Quarterly Facility Unit Availabilities

Availability	Q1FY13 Average	Q2FY13 Average	Q3FY13 Average	FY13 YTD Average
Boiler No. 1	95.4%	96.8%	92.8%	95.0%
Boiler No. 2	94.7%	94.8%	93.2%	94.3%
Boiler No. 3	90.2%	100.0%	92.4%	94.2%
Avg.	***93.5%***	***97.2%***	***92.8%***	***94.5%***
Turbine No. 1	97.5%	76.6%	100.0%	91.4%
Turbine No. 2	97.5%	98.3%	99.6%	98.5%
Avg.	***97.5%***	***87.5%***	***99.8%***	***94.9%***

5.1 Facility Operations

During Q3FY13, the Facility experienced two (2) instances of unscheduled downtime for the boilers, and one (1) instance of unscheduled downtime for the turbine generators. On February 23rd, Boiler No. 3 experienced 0.8 hours of unscheduled downtime attributable to an ash discharger plug. On February 25th, Boiler No. 3 experienced 27.3 hours of unscheduled downtime to repair a tube leak. On March 5th, Turbine Generator No. 2 experienced 8.0 hours of unscheduled downtime due to a condenser tube leak. CAAI reports that it elected to leave Turbine Generator No. 2 on standby following the condenser tube leak repair until Boiler No. 3 was brought back online (193.8 hours) due to better electrical generation from Turbine Generator No. 1. Beginning January 1st, Boiler No. 2 experienced 46.2 hours of standby time attributable to low pit inventory. Scheduled maintenance was conducted on all three (3) boilers during the quarter.

Beginning January 26th, Boiler No. 2 experienced 149.1 hours of downtime for scheduled maintenance. Some significant maintenance items conducted during the outage included:

- Replacement of one (1) curved block in Position No. 14 on the stoker
- Replacement of 12 wear plates in the ash discharger: five (5) in front of the ram, five (5) behind the ram, and both side plates on the incline
- Replacement of baffle plating, angle and supports for the outlet side of the generating bank on the 4th floor level
- Replacement of all the feed ram wear plates
- Replacement of two (2) feet of metal above and below the SDA outlet expansion joint.
- Replacement of the SDA expansion joint and flow liner
- Replacement of Cells E and F conveyor screws, bearings, and tail shafts

Beginning March 1st, Boiler No. 1 experienced 160.3 hours of downtime for scheduled maintenance. Some significant maintenance items conducted during the outage included:

- Change-out of the convection hopper double dump valve

- Performance of all annual calibrations on the feed, pressure, and temperature transmitters
- Replacement of all thermocouples for the furnace and second pass
- Installation of a new carbon feeder
- Replacement of 1,596 baghouse bags
- Replacement of upper 10 tube bundles in the economizer
- Replacement of two (2) feet of metal around the expansion joint in the baghouse outlet ductwork

Beginning March 9th, Boiler No. 3 experienced 139.5 hours of downtime for scheduled maintenance. Some significant maintenance items conducted during the outage included:

- Change-out of the J-bars and the grate bars on steps 1-11 on both runs of the stoker
- Change-out of 12 carrier beams in the stoker
- Change-out of 17 wear plates in the ash discharger
- Replacement of two (2) feet of metal around the expansion joint in the baghouse inlet ductwork
- Installation of a new double dump valve on the convection hopper
- Performance of all annual calibrations on the flow, pressure, and temperature transmitters
- Replacement of all thermocouples for the furnace and second pass

Additional maintenance was conducted during Q3FY13 with the completion of 2,437 preventative maintenance items.

5.2 Utility and Reagent Consumptions

Table 5: Facility Utility and Reagent Consumptions

Utility	Units	Q3FY13 Total	Q3FY12 Total	Q3FY13"Per Processed Ton" Consumption	Q3FY12"Per Processed Ton" Consumption	FY13 YTD Total
Purchased Power	MWhr	5,416	5,449	0.07	0.07	16,458
Fuel Oil	Gal.	9,990	8,140	0.12	0.10	37,440
Boiler Make-up	Gal.	1,777,000	1,451,000	21.78	18.44	5,460,000
Cooling Tower Make-up	Gal.	37,400,000	29,500,350	458.38	374.85	115,040,381
Pebble Lime	Lbs.	1,238,000	1,304,000	15.17	16.57	3,666,000
Ammonia	Lbs.	136,000	115,000	1.67	1.46	414,000
Carbon	Lbs.	98,000	100,000	1.20	1.27	304,000
Dolomitic Lime	Lbs.	188,000	450,000	2.30	5.72	658,000

Fuel oil usage during the quarter represents approximately 0.19% of the total heat input to the boilers, which compares favorably with industry averages, and is slightly higher than the percentage in Q3FY12 at 0.16%. Fuel oil is used to stabilize combustion of wet fuel, as well as during start-up and shut-down of the boilers for maintenance. Boiler makeup water usage during the quarter represents 2.9% of steam flow, and is acceptable. Pebble lime usage, at 1,238,000 lbs. is lower (5.1%) than the corresponding quarter last year, and the quarterly consumption rate of 15.2 lbs/ton is below historical levels (16-18 lbs/ton).

In comparing Q3FY13 to Q3FY12 on a per processed ton consumption basis:

- the purchased power consumption rate was 4.1% lower
- the total fuel oil consumption rate was 18.4% higher
- the boiler make-up water consumption rate was 18.1% higher
- the cooling tower make-up water consumption rate was 22.3% higher
- the total pebble lime consumption rate was 8.4% lower
- the ammonia consumption rate was 14.1% higher
- the carbon consumption rate was 5.5% lower
- the total dolomitic lime consumption rate was 59.7% lower

The significant increase of fuel oil usage during the quarter is attributable to startup/shutdown activities associated with the spring outage season. The significant decrease in dolomitic lime consumption rate was achieved while maintaining ash pH within the desired range, and may be related to the aforementioned decrease in ash moisture level.

6.0 Environmental

The retrofit air pollution control equipment maintained emission concentrations well within the established regulations. Average Continuous Emission Monitoring System (CEMS) data collected for each monthly period during Q3FY13 are summarized in Appendix A. The Facility experienced one (1) Reportable Non-Exempt (RNE) permit exceedance during the quarter, which is summarized in Table 6, and as follows:

On February 21st, Boiler No. 1 4-hour Carbon Monoxide (CO) levels reached 181 ppm (100 ppm limit), attributable to improperly mixing and overfeeding waste.

Table 6: Quarterly Environmental Excursions

Number	Date	Excursion	Exempt
1	2/21/13	Boiler No. 1 4-hour CO levels reached 181 ppm (100 ppm limit)	No

6.1 Nitrogen Oxide Emissions

During Q3FY13, the monthly emission concentrations of nitrogen oxides (NO_x) averaged 168.3 ppmdv, 161.0 ppmdv and 162.3 ppmdv for Boiler Nos. 1, 2, and 3, respectively. CAAI continues to operate the units at the lower (160 ppmdv) set-points, except immediately following a scheduled outage and associated boiler cleaning.

6.2 Sulfur Dioxide Emissions

During Q3FY13 the monthly emission concentration of stack sulfur dioxide (SO_2) averaged 2.0 ppmdv, 0.2 ppmdv, and 1.0 ppmdv for Boiler Nos. 1, 2, and 3, respectively. All of these stack SO_2 concentrations are significantly below the 40 CFR Subpart Cb requirement of 29 ppmdv @ 7% O_2.

6.3 Carbon Monoxide Emissions

During Q3FY13, the average CO emission concentrations on Boiler Nos. 1, 2, and 3 were 36.7 ppmdv, 31.0 ppmdv, and 34.0 ppmdv, respectively, and all are well within permit limits (100 ppmdv, hourly average).

6.4 Opacity

During Q3FY13, the average opacity for Boiler Nos. 1, 2, and 3 was 0.9%, 1.0%, and 0.1% respectively. All of these averages are significantly below the 10% (6-minute) average permit limit.

6.5 Daily Emissions Data

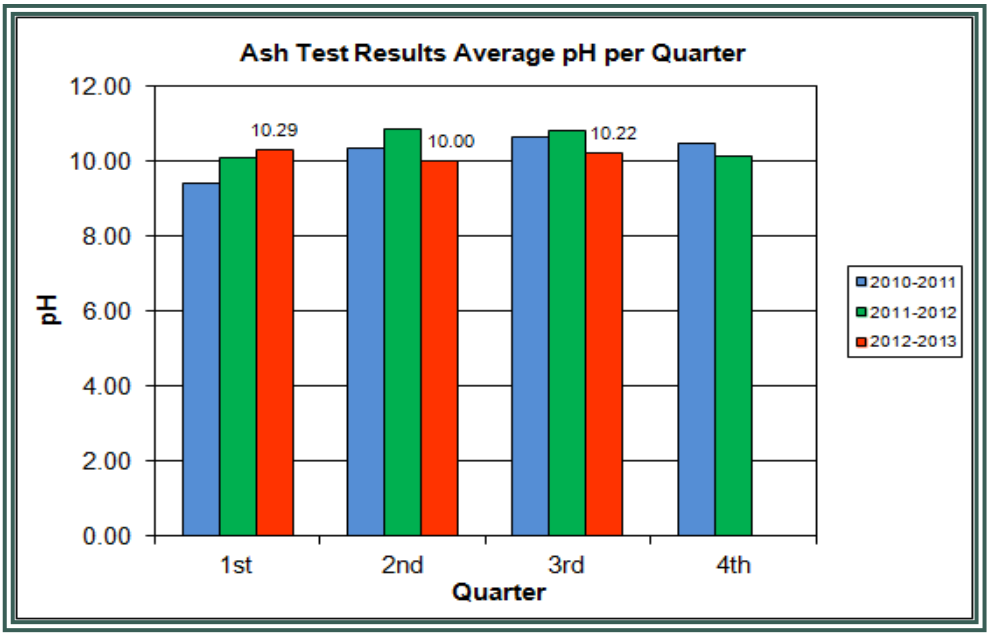
Appendix A, Tables 8, 9, and 10 tabulate the monthly average, maximum, and minimum emissions data for each unit during Q3FY13. Excursions, if any, would appear in bold print. It should be noted that these tabulations of monthly averages, reported here for informational purposes, are based on tabulations of daily averages. These averages do not correlate with official reports to the regulatory agencies because of differences in averaging times and other technical differences required by agency report formats.

6.6 Ash System Compliance

The dolomitic lime feed rate is adjusted periodically in order to maintain a desired ash pH level in the range of 8.0 to 11.0. Since initial startup, the feed rate has varied from between 4 to 9 lbs per ton. Ash Toxicity (TCLP) tests were not performed during Q3FY13.

CAAI samples ash monthly and documents pH reading to adjust dolomitic lime feed rate. The results for the ash pH tests are shown below in Chart 15 where each quarter is represented by the average of the respective monthly readings. During Q3FY13, the average ash pH for in-house tests was 10.2.

Chart 15: Ash Test Results



6.7 Steam Production Issues

In October, 2007, VADEQ issued CAAI a "Warning Letter" (WL) regarding alleged violations of Condition 14 of the Facility's Prevention of Significant Deterioration (PSD) permit issued in 2002. In response to the WL, CAAI recalculated annual steam production totals according to the VADEQ's methodology which was to track the annual limit on a monthly basis, by adding the current month's production to the previous 11 months' total, and comparing it to the annual 1.12 million ton limit (Previously, CAAI tracked the annual limit on a calendar year basis, and not monthly). The recalculated data showed that the Facility exceeded the steam production limits on several occasions. Although there were not any exceedances of air emissions at the Facility, VADEQ issued a Notice of Violation (NOV) on February 29, 2008.

In March 2009, CAAI and VADEQ entered into a letter of agreement (LOA) to resolve the alleged violations. The tenets of the agreement stipulate that:

> The annual steam production for the Facility shall not exceed 1,170,400 tons on the basis of an average value of 3.34 lbs of steam per lb of MSW processed, calculated

monthly as the sum of each consecutive 12 month period, as compared to the measured totalized steam flow that was previously used.

Chart 5 on page 11 depicts the steam production total calculated monthly as the sum of each consecutive 12-month period.

While the agreement with DEQ settled a long-standing issue and clarifies the methodology to be used, HDR considers it to be a flawed approach, and not consistent with general industry practice. The DEQ approach relies on a more-subjective method of calculating steam flow based on the tonnage of waste processed. Determination of monthly tonnage of waste processed relies on estimates of the quantity of waste in the pit, based only on visual observation. In addition, it is well known that waste at the bottom of the pit has significantly higher density (weight per volume) than that at the top of the pit, and this is not factored into the monthly tonnage. Finally, the conversion of MSW tonnage to steam production ignores the variability in waste heating value.

7.0 Facility Maintenance

Throughout the quarter, significant routine and planned maintenance was performed. HDR considers that the Facility is implementing a very effective maintenance regimen, and is performing routine and preventative maintenance, along with selected equipment replacements in a timely manner. CAAI monthly maintenance reports provide a detailed account of maintenance performed.

7.1 Safety

The plant had no recordable accidents during the quarter. The plant has operated 864 days without an OSHA recordable incident through the end of March 2013. Safety training was conducted during the quarter with themes as follows:

January 2013 - Accident Prevention and Hazard Recognition
February 2013- Control of Hazardous Energy
March 2013 - Hand/Portable Power Tools and Equipment Safety

7.2 Facility Housekeeping

CAAI is performing Facility housekeeping and maintaining plant cleanliness in accordance with acceptable industry practices. A Site inspection was conducted in March 2013. At the time of the inspections, new deficiencies were recorded and prior deficiencies were given a status updates. Photos of interest from the inspection are depicted in Appendix B. The Facility housekeeping ratings from the March 2013 inspection are presented in Table 7.

Table 7: Facility Housekeeping Ratings – March 2013

Facility Area	Highly Acceptable	Acceptable	Needs Improvement	Unacceptable
Tipping Floor		√		
Citizen's Drop-off Area		√		
Tipping Floor Truck Exit		√		
Front Parking Lot		√		
Rear Parking Lot		√		
Boiler House Pump Room		√		
Lime Slurry Pump Room		√		
Switchgear Area		√		
Ash Load-out Area		√		
Vibrating Conveyor Area	√			
Ash Discharger Area		√		
Cooling Tower Area		√		
Truck Scale Area		√		
SDA/FF Conveyor Area		√		
SDA Penthouses		√		
Lime Preparation Area		√		
Boiler Drum Levels		√		
Turbine Room	√			
Electrical Room		√		

APPENDIX A
FACILITY CEMS DATA

Table 8: Unit #1 Monthly Summary for Reportable Emissions Data

Group#-Channel#		G8-C35	G8-C28	G8-C8	G8-C4	G8-C12	G8-C34	G8-C37	G8-C40	G8-C39
Long Descrip.		U-1 Steam	U-1 Econ	U-1 Stack	U-1 Stack	U-1 Stack	U-1 Opaci	U-1 FF In	U-1 Carbo	U-1 Lime
Short Descrip.		SteamFl	SO_2ec	SO_2sc	COsc	NO_xsc	Opacity	FF InTemp	CarbInj	LimeFlow
Units		K#/Hr	ppmc	ppm	ppmc	ppmc	%	deg F	#/hr	gpm
Range		0-100	0-2000	0-500	0-4000	0-1000	0-100	100-500	0-50	0-20
Jan-13	AVG	57.0	26.0	1.0	42.0	166.0	0.7	304.0	16.5	2.9
	Max	90.3	40.0	7.0	48.0	194.0	2.4	306.0	18.1	4.5
	Min	81.3	16.0	0.0	33.0	161.0	0.0	302.0	16.3	2.4
Feb-13	AVG	80.2	19.0	1.0	39.0	163.0	1.0	303.0	16.4	3.0
	Max	85.3	29.0	5.0	71.0	181.0	2.6	306.0	17.4	3.8
	Min	72.9	11.0	0.0	28.0	156.0	0.2	300.0	16.2	2.6
Mar-13	AVG	88.9	79.0	4.0	29.0	176.0	0.9	302.0	16.6	3.8
	Max	91.4	126.0	9.0	44.0	189.0	1.7	304.0	18.3	4.5
	Min	68.9	15.0	0.0	22.0	151.0	0.1	302.0	16.2	2.9
Quarter Average		75.4	41.3	2.0	36.7	168.3	0.9	303.0	16.5	3.2
Quarter Max Value		91.4	126.0	9.0	71.0	194.0	2.6	306.0	18.3	4.5
Quarter Min Value		68.9	11.0	0.0	22.0	151.0	0.0	300.0	16.2	2.4
Limits:		NA	NA	29	100	205	10	320	16(a)	

(a) Carbon flow limit is a minimum value

* Note: The data reported herein represent 24 hour average data for all parameters. Emissions excursions that are measured on shorter time intervals (ie., 4-hour block averages for CO) do not correlate with the 24 hour average data reported above.

Table 9: Unit #2 Monthly Summary for Reportable Emissions Data

Group#-Channel#		G8-C35	G8-C28	G8-C8	G8-C4	G8-C12	G8-C34	G8-C37	G8-C40	G8-C39
Long Descrip.		U-2 Steam	U-2 Econ	U-2 Stack	U-2 Stack	U-2 Stack	U-2 Opaci	U-2 FF In	U-2 Carbo	U-2 Lime
Short Descrip.		SteamFl	SO_2ec	SO_2sc	COsc	NO_xsc	Opacity	FF InTemp	CarbInj	LimeFlow
Units		K#/Hr	ppmc	ppm	ppmc	ppmc	%	deg F	#/hr	gpm
Range		0-100	0-2000	0-500	0-4000	0-1000	0-100	100-500	0-50	0-20
Jan-13	AVG	78.5	33.0	0.0	32.0	161.0	1.2	300.0	16.4	2.8
	Max	86.9	52.0	2.0	39.0	186.0	3.5	300.0	18.5	3.8
	Min	69.8	19.0	0.0	23.0	156.0	0.2	296.0	16.2	2.5
Feb-13	AVG	90.6	64.0	1.0	33.0	164.0	1.0	298.0	16.1	3.0
	Max	91.7	96.0	6.0	42.0	177.0	2.1	299.0	16.8	3.4
	Min	87.6	41.0	0.0	28.0	156.0	0.0	298.0	16.0	2.5
Mar-13	AVG	90.6	44.0	0.0	28.0	158.0	0.8	298.0	16.3	3.0
	Max	92.2	68.0	5.0	39.0	162.0	2.0	300.0	16.8	3.4
	Min	88.3	27.0	0.0	23.0	157.0	0.0	298.0	16.0	2.7
Quarter Average		86.6	47.0	0.3	31.0	161.0	1.0	298.7	16.3	2.9
Quarter Max Value		92.2	96.0	6.0	42.0	186.0	3.5	300.0	18.5	3.8
Quarter Min Value		69.8	19.0	0.0	23.0	156.0	0.0	296.0	16.0	2.5
Limits:		NA	NA	29	100	205	10	320	17(a)	

(a) Carbon flow limit is a minimum value

* Note: The data reported herein represent 24 hour average data for all parameters. Emissions excursions that are measured on shorter time intervals (ie., 4-hour block averages for CO) do not correlate with the 24 hour average data reported above.

Table 10: Unit #3 Monthly Summary for Reportable Emissions Data

Group#-Channel#		G8-C35	G8-C28	G8-C8	G8-C4	G8-C12	G8-C34	G8-C37	G8-C40	G8-C39
Long Descrip.		U-3 Steam	U-3 Econ	U-3 Stack	U-3 Stack	U-3 Stack	U-3 Opaci	U-3 FF In	U-3 Carbo	U-3 Lime
Short Descrip.		SteamFl	SO_2ec	SO_2sc	COsc	NO_xsc	Opacity	FF InTemp	CarbInj	LimeFlow
Units		K#/Hr	ppmc	ppm	ppmc	ppmc	%	deg F	#/hr	gpm
Range		0-100	0-2000	0-500	0-4000	0-1000	0-100	100-500	0-50	0-20
Jan-13	AVG	91.0	34.0	1.0	35.0	162.0	0.0	296.0	16.3	2.9
	Max	92.4	45.0	2.0	50.0	188.0	0.1	297.0	18.7	3.5
	Min	88.9	25.0	0.0	28.0	158.0	0.0	296.0	16.2	2.5
Feb-13	AVG	89.6	37.0	1.0	39.0	159.0	0.0	296.0	16.3	2.8
	Max	93.0	54.0	3.0	46.0	175.0	0.1	298.0	16.9	3.5
	Min	80.6	21.0	0.0	32.0	143.0	0.0	291.0	16.2	2.6
Mar-13	AVG	91.6	67.0	1.0	28.0	166.0	0.3	296.0	16.6	3.4
	Max	93.7	122.0	7.0	39.0	187.0	0.9	297.0	18.7	3.8
	Min	88.7	28.0	0.0	21.0	150.0	0.0	295.0	16.0	2.8
Quarter Average		90.7	46.0	1.0	34.0	162.3	0.1	296.0	16.4	3.0
Quarter Max Value		93.7	122.0	7.0	50.0	188.0	0.9	298.0	18.7	3.8
Quarter Min Value		80.6	21.0	0.0	21.0	143.0	0.0	291.0	16.0	2.5
Limits:		NA	NA	29	100	205	10	320	16(a)	

(a) Carbon flow limit is a minimum value

* Note: The data reported herein represent 24 hour average data for all parameters. Emissions excursions that are measured on shorter time intervals (ie., 4-hour block averages for CO) do not correlate with the 24 hour average data reported above.

APPENDIX B
SITE VISIT PHOTOS

Figure 1: Pothole at truck entry roadway (Existing Deficiency)

Figure 2: Citizen's Drop-off

Figure 3: Temporary metal plating at truck entrance roadway - excavation for installation of pipe to adjacent construction site

Figure 4: General facility view from scale entrance

Figure 5: Induced Draft Fan

Figure 6: Ash load-out area - No issues observed

Figure 7: Firing Aisle

Figure 8: Spray Dryer Absorber No. 1 Area

Figure 9: Spray Dryer Absorber No. 2 Area

Figure 10: Spray Dryer Absorber No. 3 Area

Figure 11: Overhead view of Cooling Towers

Figure 12: Pit view from Charging Floor

Figure 13: Turbine Deck

Figure 14: Ferrous metal magnet

Figure 15: Grate bars stored for outage activities

Figure 16: SDA No. 1 from ground elevation

Figure 17: Main Vibrating Conveyor at ground elevation

Figure 18: Lube Oil Skid No. 1